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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS:           Stefanos Manganaris  
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EXAMINER: M. Heck

GROUP ART UNIT: 3623

APPLICATION NO.   09/507,004

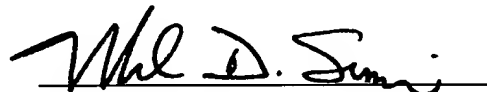
FILED:               February 22, 1999

TITLE:               **METHOD AND SYSTEM FOR RESEARCHING PRODUCT  
DYNAMICS IN MARKET BASKETS IN CONJUNCTION  
WITH AGGREGATE MARKET BASKET PROPERTIES**

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I hereby certify that this paper is being deposited with the U.S. Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Commissioner for Patents, Mail Stop APPEAL BRIEF--PATENTS, P. O. Box 1450, Alexandria, VA 22313-1450, Attention: Board of Patent Appeals and Interferences on April 27, 2004.

  
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APPELLANTS' REPLY TO EXAMINER'S ANSWER

This Reply is in response to the Examiner's Answer mailed on February 27, 2004. Applicant believes that no fee is necessary for submission of this Reply; however, if any fee is deemed as being due respecting this Reply, Applicant authorizes such fee to be charged to International Business Machines Corporation's Deposit Account No. 09-0461.

**1. RESPONSE TO EXAMINER'S ARGUMENTS**

For the sake of simplicity, Applicant again summarizes the claimed invention:

The claimed invention is a computer- implemented method of processing the market aggregate sales data concerning items grouped in a plurality of market baskets. The aggregate sales data, that is, the data concerning the all of the items in a market basket, is analyzed on a basket-by-basket basis (i.e. analyzed based on the market basket groupings) and a determination is made as to whether or not the market basket groupings display characteristics identified by analysis parameters defined by a user of the data analysis results. For every market basket grouping that has been determined to display characteristics identified by the analysis parameters, the aggregate sales data for that market basket is enhanced by the addition of an additional item to the aggregate sales data, that is, an "imaginary item" whose sole purpose is to identify characteristics of the market basket. The specification defines examples of characteristics as, for example, a "high-margin" basket or "negative gross margin" basket. By embedding into the aggregate sales data for market basket these imaginary items, traditional association analysis can be performed on the market basket data and a correlation can be made between the actual items in the basket and the characteristics of the market basket as identified by the imaginary items.

In the Examiner's Answer, the Examiner asserts that Column 2, Lines 40 through 45 of the Chen, et. al. reference discloses "aggregate data is received" (See, page 3 of Examiner's Answer). The cited portion of Chen, et. al. is reproduced in its entirety, as follows:

A step of incorporating data into the data base is part of the method. The method can also include a step of performing analysis on the data in the data base. Accordingly, the combination of these steps can provide an environment for analyzing information about customers, business processes and the like.

Applicant can find nowhere in this cited portion of Chen, et. al. any recitation of the receipt of aggregate data, let alone any recitation of the receipt of aggregate sales data concerning items grouped in a plurality of market baskets as claimed.

Of greater importance, however, is the lack, in either the Chen, et. al. or Jacobi, et. al. references, of any suggestion, let alone teaching, of the embedding, i.e., adding, of additional "imaginary items" in the market basket data itself, nor the concept of embedding any data in the market basket data which would characterize the market basket based upon an analysis of the aggregate sales data of that basket.

Applicant acknowledges that Jacobi, et. al. teaches the recommendation of products or other items to a user based upon a set of items known to be of interest to the user, such as a set of items currently in the user's electronic shopping cart. The portions of the Jacobi, et. al. cited by the Examiner identify the pushing of items to potential purchasers based upon correlations between items currently in the electronic market basket of the user and other items that other purchasers of the same items in the market basket have also purchased. Applicant further acknowledges that Jacobi, et. al. teaches the compilation of a "similar items list" that is correlated with the items in the user's market basket and which, based upon this correlation, is used to present to the user a list of items that statistics have shown the user may be potentially interested in. In a typical

embodiment of the Jacobi, et. al. patent, these suggested recommendations are displayed on a web page next to a list of the items in the user's market basket.

This recommendation feature of Jacobi, et. al., while useful, is not what Applicant claims as its invention and has nothing to do with the Applicant's invention. The independent claims of the present invention clearly recite that the present invention is a method of processing market research data that includes the addition of characteristic-defining items (the imaginary items) directly into the aggregate sales data of the market basket of a user. Thus, to an analyst or a computer system analyzing the aggregate sales data, there will be additional items analyzed that do not represent actual purchases, but instead represent characteristics of the actual purchases in that aggregate sales data. This enhanced data is used for analysis and provides analysts with the ability to, for example, delve into purchasing behavior in a way that is not available using prior art systems or methods. Neither Chin, et. al. nor Jacobi, et. al., taken alone or in combination, teach or suggest the embedding of imaginary items into aggregate sales data for a market basket as is specifically claimed in the present invention.